Immigration, Refugees and Citizenship Canada
Immigration, Réfugiés et Citoyenneté Canada

Director General
Citizenship and Passport
Program Guidance

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F-1128566

MEMODANDUM TO THE ASSISTANT DEPUTY MINISTER, OPERATIONS

ESTABLISHING THE OFFICER OF RECORD FOR THE PASSPORT PROGRAM

FOR INFORMATION

SUMMARY

- The purpose of this memorandum is to provide you with information on the establishment of the Passport Program's Officer of Record.
- As the Passport Program's Modernization Project advances its use of automation and automated decision making, the Program determined that an Officer of Record is required to formalize the fact that one individual is responsible for the establishment of the automation rules, and that the system is not taking decisions on its own accord.
- The Director General of Citizenship and Passport Programs will assume the role of Officer of Record to support your responsibilities with respect to the Treasury Board Secretariat of Canada's Directive on Automated Decision-making.

BACKGROUND:

- The Treasury Board Secretariat Directive on Automated Decision-Making established in 2019 requires the Associate Deputy Minister to be responsible for algorithmic impact assessments, transparency measures, quality assurance, client recourse, and reporting. An Officer of Record supports the ADM in fulfilling their responsibilities for the Passport Program by providing the necessary oversight and being a single point of responsibility for the Program.
- The use of automated decision-making capabilities were introduced in December 2019 for processing Canadian passports. The automation rules determine if a person has a client record in the system, validates identity and match application to client record, ensures that the client's record does not match any security alerts, determine eligibility, triage applications for manual review and approve low risk /low complexity applications if no concerns were triggered.
- To support the advancement of the Passport Program Modernization Initiative (PPMI) objectives, a gap analysis identified that the Program needs to establish an Officer of Record

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before the expansion of the use of automation and automated decision-making. The Officer of Record is accountable and is needed to confirm that an individual is overseeing the establishment of the automated business rules, and that the system is not taking positive decisions on its own accord. Negative decisions are not made through automation and any application that cannot be completed through automation is referred to an officer for a manual intervention including decision making.

- The Officer of Record should be a senior official who can reasonably be expected to examine automated business rules. For the Temporary Resident Visa (TRV) Advanced Analytics models in China and India, IRCC elected to assign the Director General of the Immigration Program Guidance Branch as the Officer of Record for all eligibility decisions made without officer review. Establishing the Director General of Citizenship and Passport Programs Branch as the Officer of Record for passport automation is consistent with the approach established for TRV and also aligns with the Program Official role.

CURRENT STATUS:

- The current automation rules were approved through the existing PPMI governance structure, and have been tested and assessed prior and post deployment to ensure the system is performing as intended. Any updates required to these rules are managed through a formal Change Request approval.

- In general, the Program's use of automation and automated decision-making is deemed low risk as the system is not being programmed to render decisions on complex or high risk applications. The system is neither programmed to render negative decisions in any type of passport applications. The only applications processed end-to-end will be the ones deemed low-risk/low-complexity where the client is known to the Program and where no request to change/update personal information was made. These cases approved through automation are renewal applications and adult regular applications where a Citizenship Certificate is presented as a Documentary Evidence of Citizenship (CIT to PPT). Applications that are higher risk and more complex, such as child and first time applicants, will be reviewed manually.

NEXT STEP:

- As the Officer of Record, I will review, approve and ensure proper records maintenance of new and existing business rules to support you in your responsibilities outlined in the TBS Directive on Automated Decision-Making.

e-approved
Valery Brennan for Michèle Kingsley
Director General, Citizenship and Passport Programs Branch

Automated Decision-Making Report

July 2020

Passport Modernization Projects, Business Readiness

Citizenship and Passport Program Guidance

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Document Change Control

Version	Date	Author(s)	Brief Description of Change(s)
1.0	2020-05-21	CPPG, Projects, BR	Initial 1st draft
1.2	2020-06-10	Working level consultations	2nd draft
2.0	2020-08-26	Directors approval through PMO	FOR APPROVAL.msg RE FOR APPROVAL.msg

[1](3). Automated Processing for Passport Applications: http://gcdocs2.ci.gc.ca/otcs/cs.exe?func=ll&objaction=overview&objid=227400877
[2]PPMI-IRCC Conclusion Report - FINAL: http://gcdocs2.ci.gc.ca/otcs/cs.exe/Overview/364732426

Background & Purpose

The Passport Program Modernization Initiative (PPMI) is a multi-year project that will improve efficiency, strengthen security, and increase Canadians' access to passport services. PPMI will replace the current passport issuance system which is nearing its end of life, will deliver a digital platform for passport processing and lay the foundation for future Passport business and service improvements such as online and abroad service delivery.

The new passport issuance system is the Global Case Management System (GCMS), a proven processing system which uses automation, resulting in quicker processing and better service. GCMS uses strong search and automated business rules capabilities which will improve program integrity and strengthen identity validation.

The purpose of this document is to provide an overview of the automation capability of GCMS for the processing of Canadian passports. The reader will find a summary of the automation functionalities, its performance since IRCC PPMI deployment on December 3rd 2019, and important lessons learned during development and deployment.

Automation in GCMS is a rule-based decision-making process, which was released for processing Canadian passports on Release 21 in December 2019. Note that although new for the Passport Program, automation in GCMS has been used for many years for the processing of other Lines of Business in IRCC.

The process for the passport applications starts with users from the IRCC Controlled Passport Processing Unit (CPPU) creating the applications in GCMS where rules of automation are triggered. The automation rules for the processing of passport applications were built in GCMS from business requirements established by the Passport Modernization Project Office (PMPO) (now CPPG - Passport Modernization Projects, Business Readiness) and Passport Program stakeholders. These rules allow the system to make automated policy and procedural verifications and decisions on low-risk and low-complexity applications that a user would usually make manually. As well as bringing a new automated system for passports, GCMS has other efficient functionalities, such as the ability to send files electronically for review, to any user or office and that, at any point of the passport application process.

On January 29th 2020, Tempo, the new intake tool, was launched along with the GCMS release 21.03. More passport automation rules were integrated in GCMS that allowed it to manage information being

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imported from Tempo. The new functions included auto searching and auto promoting of applications. Two other releases followed, R22 and R22.03, where functions were added or adjusted as necessary. New or modified rules and functionalities will continue as new releases take place.

Automated Decision-Making Process

Overall automated decision-making is performing as intended. Throughout the GCMS releases, the system was modified through appropriate processes (i.e. Change Requests) to address issues with the system and to implement new ideas on how to make the system better. The automated decision-making was built to follow a specific flow[1] once applications are submitted to GCMS.

These automated decisions cover the many procedures and policies that are required to make a passport entitlement decision. The system approves the non-complex applications (i.e. Renewal applications) or creates a drop-out for manual review and approval. All applications are then sent to print after being assessed for system quality assurance (SQA), an activity performed on 100% of the processed applications as part of the project. The diagram below provides an overview of the current automation flow.

[1](3). Automated Processing for Passport Applications: http://gcdocs2.ci.gc.ca/otcs/cs.exe?func=ll&objaction=overview&objid=227400877
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As mentioned previously, the automated decision-making reflects the steps that a passport officer usually does while manually processing a passport application. Note that there is ongoing work and liaison between Projects Branch and the Business Readiness team to improve the system and fix system issues. Refer to Annex 1 for details on the overall statuses of the main requirements and the existing bugs and change requests (CRs) for any mentioned issues.

Below there is a detailed description of the main automation activities and how well have they been performing at the time of this writing.

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s.16(2)

Auto-Approval

The system bases its auto-approval decision on specific components such as [1]

. The system will only auto-approve non-complex applications (i.e. renewal application) that have successfully passed all verifications. For the rest, the rules are set to send applications for manual review and "manual" final decision (i.e. approval, rejection or refusal).

Two more modifications were made since Release 21. The first one was that the automation activities for child and adult applications were moved to the end of the automation flow, under the Auto Approval activity. This change was made to prevent the applications from dropping-out until all assessments were complete. This created a more logical flow for the user. Secondly, SQA and printing were added to the automation flow for child and adult applications. Those additions allowed the more complex applications, even if manually approved, to return to the automation flow. Since these modifications were made and the issues fixed, this automation activity has been performing as intended.

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[1](3). Automated Processing for Passport Applications: http://gcdocs2.ci.gc.ca/otcs/cs.exe?func=ll&objaction=overview&objid=227400877
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System Quality Assurance

Since the start of the IRCC deployment, 100 % of the files processed by IRCC have gone through the SQA process. This process was established for the IRCC deployment to ensure all system rules and activities perform as intended. It is expected that the percentage of files subject to the SQA process will decrease as the project moves to different deployment stages and confidence in the system increases, but not during pre-pilots as the SQA will continue with a 100%.

A system quality assurance business requirement was added in the form of a drop-out to evaluate the system's decisions while processing a passport application in GCMS. The evaluation is done manually by an agent before the application is sent to print. The quality assurance is done using a detailed questionnaire with one or two questions for each automated decision. The answers are put into a report for the automation's behavior to be clearly portrayed and analysed. The PPMI-IRCC Conclusion Report[2] gives an overview of the drop-out rates and the accuracy of the system's decisions. Of the 24,984 system decisions (GCMS) and functionalities (as of March 13th, 2020) that have been assessed since the beginning of the IRCC deployment on December 3rd, 24,792 were accurate. This represents a 99.23% accuracy rate.

Like the system requirements, the SQA activity is being adjusted to align with system changes. This automation activity has always worked as intended.

Tempo SQA came later during the IRCC deployment. For Tempo, the quality assurance activity is performed by the CPPU user while completing data entry in Tempo. The success rate was discovered to be lower than the automation's SQA at 72.75%. The reason for the 72.75% success rate is that users encountered some technical issues with the integration of the information in GCMS. The bugs were primarily in the data entry functions. For example, one or two users were having scanning issues which affected the percentage substantially. It is important to note that the results of SQA activities in Tempo

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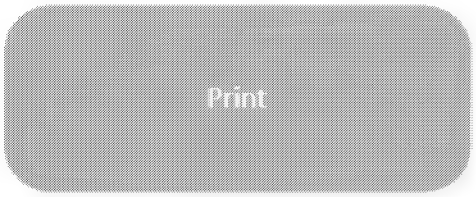
are not related to decision-making system rules, but to technical glitches and user interface experience. These issues have been quickly identified by CPPU, and many of them were resolved in R23 on June 2nd, 2020.



Print

The system automatically sends applications to ePPS once there is a group of 25 applications. At the beginning of the IRCC deployment, there was an instance where applications would not be sent automatically to print. This was identified as a bug and has been fixed. This automation activity is now working well.

Related to the print activity "Process Control Documents", there have been some issues surrounding the groups and the print status that the CI sends back to GCMS. For example, for spoil errors or urgent requests from applicants, a user was not able to manually add or remove an application from a group even if they were in the same responsible office. This bug was fixed in Release 23. An active issue that will be identified in a CR is the status GCMS receives after an application is sent to the CI.

Conclusion & Lessons learned

To summarize, automated decision-making has changed passport processing at IRCC by making it more efficient and strengthening its integrity features. The new intake tool, Tempo, and the processing system, GCMS, are helping users to process applications faster, while keeping the level of user's errors to a minimum.

The implementation of automation for passport processing has shown that system requirements evolve as their implementation take place. As more users are brought on and as more testing is done, the system is subjected to continuous improvement. On this note, UAT has played an important role in the

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success of automation. UAT has allowed functionalities to be tested prior release, helped the business developing more comprehensive requirements, and reduced the risk of system requirements' gaps.

System quality assurance (SQA) was another important aspect that helped assessing how automation was performing. Under SQA, a review of each automation rule was done on a 100% of the files processed. This review was based on a list of questions that determined if the system made the correct decisions by either approving the files or dropping the files for manual review. As previously mentioned, GCMS had a 99.23% success rate, and the targeted success rate is at 98%.

Overall, the planning and execution of the IRCC deployment was successful. All parties involved, Business Readiness and stakeholders, worked hard to establish a good process to report issues that arose. Those achievements also contributed to the planning process of pre-pilots which is scheduled to begin shortly.

Four main lessons learned were gathered to complete this report, which should be applied at next stages of the PPMI project and other modernization initiatives.

1) **System users must have a good understanding of how the system is expected to work and on the procedures to be followed**

   During implementation and IRCC deployment, the CPPU team was divided by different tasks. Some were doing UAT and others only working on production files. As UAT is an important learning tool (e.g., hands-on in new features, encounter and resolve bugs), it gives a good perspective of the automation process as a whole. It was noted that agents who were not on UAT were less knowledgeable about the system and its functions. Some issues during deployment were user based and not system based. It became evident that additional training and aids were needed for users to properly use the new system. Whether participating on pre-pilots, pilots or deployment, it is critical to users to have access to clear and effective procedures on the new functions of the systems (Tempo and GCMS). Since these issues were identified, improvements were made to solidify users' system knowledge. Users now have cheat sheets, job aids and procedures which will be used and validated during the pre-pilots so that improvements can be made before the start of the pilots.

2) **Implement early to assess and adapt to address unexpected results**

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As mentioned in the auto-approval section (3.5), the high drop-out rate for renewal files was unexpected. This issue was raised during UAT while testing the end-to-end scenarios in GCMS, however the impact was not evident until release 21.

This made all the applications drop out, requiring user intervention. Users documented workarounds in order to be able to process in the production environment. As part of the next project phases procedures on how to handle unexpected scenarios, such as showstopper system issues, will be developed.

3) Prepare detailed business process maps for every new process

In order to support the new automated system and experience its efficiencies, it is also important to have clear and detailed business process maps for every new process. During the IRCC deployment, the team was prepared to handle common used processes such as physical file management, pending files, calls, etc. However, more focus was needed on understanding the new processes that were less familiar to users such as querying for automation activities set for review and the management of electronic files. The new system is designed for electronic file management, this represents a big change from the current state. During the IRCC deployment, the CPPU team encountered scenarios where the team continue to use the physical files while processing in the new automation flow, hence failing to assess the impacts of a new paperless environment.

Another example is that DN did not encounter all possible scenarios to validate their workflows and procedures. It was assumed that stakeholders were going to be able to validate all scenarios, however, there was not a plan in place to ensure this was the case. This learning experience will be considered for the next phases of the project. As a general, the recommendation is that there is more dedication on development of clear and detailed business process maps for all processes, including details on the mechanics to follow to be able to assess different scenarios. This lesson learned is currently being implemented as part of the development of detailed procedures.

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4) Engage impacted stakeholders early and often to define their needs

The gaps found in the passport processing scenarios is a valuable lesson learned. The options and mechanics to obtain applications that met DN's processing scenarios were not identified prior to the start of IRCC deployment. Once deployment started, cases that would drop-out to DN were difficult to identify, and hence this limited DN's ability to validate their processes. A deeper discussion and involvement were required to properly plan how to obtain cases or at a minimum prioritize the type of cases that would allow DN to be confident about the system's functionality.

To prepare for the pre-pilots, work has been completed to identify all important scenarios that impact stakeholders. The mechanics to obtain specific files are now in place, and will be assessed during the pre-pilots as higher volumes of applications are intake.

In addition, another lesson learned about impacts on stakeholders is the importance of sending consultations when system functionalities' CRs are created regardless of the perceived level of impact. All stakeholders must be consulted even if perceived level of impact is low.

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KEY MESSAGES

Passport Program Automation

Topic: Passport Program use of electronic tools for automation

Issue: On December 3, 2019, the Passport Program, in a phased approach, began using automated processing.

Key messages:

- Immigration, Refugees and Citizenship Canada (IRCC) is establishing the necessary framework to modernize the Passport Program and improve the client experience.
- IRCC is actively looking to modernize its tools and processes to help manage the increasing volume of applications, and to provide more streamlined and consistent services for clients.
- After thorough testing in a controlled environment, the Passport Program began the first stage of the phased deployment of automation to process a small number of routine, low-risk passport applications. The use of automation will be carefully assessed before it is gradually implemented on a wider scale.
- Officers will continue to review and make decisions on all first-time applications, children's applications and complex files. Officers will also continue to process decisions to refuse, cancel or revoke a passport.
- This automated process does not use any form of advanced analytics, including artificial intelligence or machine learning.
- The goal of this technology is to support employees in their work, not replace them. The use of automated processes helps save time on simple, routine processing tasks and low-risk applications by enabling consistent decision making so that officers can dedicate more time to reviewing complex or higher-risk files.
- To ensure there is no disruption to our service delivery standards, we are taking the time needed to ensure that we have a strong and stable program foundation before further roll-out.

<u>If pressed on service disruptions</u>

- Service disruptions are not expected. In the unlikely event of any technical difficulties, officers will resume processing all passport applications as they were before automation was introduced.

If pressed on delays

- The project continues to make progress, but has encountered some delays due to technical issues and COVID-19 related interruptions. As a result of these delays, impacts are being closely monitored and a mitigation plan is in place.

- There will be no interruptions in services as officers will continue to process all passport applications using current processes.

If pressed on artificial intelligence and machine learning

- With this technology, passport applications are run against a series of requirements, this includes ensuring the application is complete and matches the information on file. If a low-risk, routine application (such as simplified renewal) meets these requirements, the application will be approved by the system and sent for printing. If an application does not satisfy any one of these requirements, it drops out of automated processing and is sent to an officer for manual review.

- At present, all applications undergo system quality assurance assessments. At a later stage, system quality assurance will be conducted for a percentage of applications selected at random to ensure the system is always meeting quality assurance targets.

If pressed on whether the technology uses analytics for applicants' social media accounts or other websites:

- This process only uses information that applicants provide on their application form and in their supporting documents, which is assessed against the information in our system.

If pressed on other initiatives in the Department

- IRCC is actively looking to modernize its tools and processes to help manage the increasing volume of applications, and to provide more streamlined and consistent services for clients.
- Authorities to support the use of electronic tools and automated decision-making were introduced in the Immigration and Refugee Protection Act in 2017.

Background:

The Passport Program updated the Canadian Passport Order to introduce general authorities for the use of electronic means and tools in the passport program, which includes

automated decision-making. A Notice of Intent for feedback from Canadians on this proposed change to the Order was posted on March 1, 2019 with no comments being received. Changes to the Order came into effect on May 9, 2019.

Subject matter expert:

Maxine Ifill, Director General, Citizenship and Passport Program Branch
Tina Matos, Director General, Admissibility

Prepared by:	**Reviewed by:**	**Last updated:**
Kate Hart, Strategic Communications	Maxine Ifill, Director General, Citizenship and Passport Programs Branch Tina Matos, Director General, Admissibility	May 17,2021

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